

<b>Notice of Allowability</b>	Application No.	Applicant(s)
	09/964,375	CHOI ET AL.
	Examiner	Art Unit

Kevin Quarterman

2879

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 25 February 2005.
2.  The allowed claim(s) is/are 7,10,12,16,17,20-22,29,36-53,55-70,72-74 and 76-79.
3.  The drawings filed on 28 September 2001 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendment and remarks received on 25 February 2005 have been entered.

***Allowable Subject Matter***

2. Claims 7, 10, 12, 16, 17, 20-22, 29, 48-53, 55-70, 72-74, 76, 77, and 79 are allowed.

3. The following is an examiner's statement of reasons for allowance: All of the above claims were allowed in the previous office action mailed 11 January 2005 and the reasons are repeated below in this office action. Now that applicant has cancelled all non-elected claims, the instant application is in condition for allowance.

4. Applicant's arguments regarding independent claim 10 are persuasive. Thus, claims 20-22, which depend upon independent claim 10, are also allowable.

5. Claims 12 and 17 were objected to for being dependent upon rejected base claims. Applicant has rewritten claims 12 and 17 in independent form including all of the limitations of the base claim and any intervening claims, as suggested by the Examiner. New claim 79 is also allowable for its dependency upon independent claim 17.

6. Applicant has amended claims 48-50 to overcome the indefiniteness rejection for lack of antecedent basis.

7. Applicant has amended independent claim 51 to include the limitations of canceled claim 54, which was previously objected to for being dependent upon a

rejected base claim. Thus, claims 52, 53, and 55, which depend upon independent claim 51, are also allowable.

8. Claim 56 has been rewritten in independent form including the limitations of independent claim 51, in addition to other limitations.

9. Independent claim 68 has been amended to include the limitations of canceled claim 71, which was previously objected to for being dependent upon a rejected base claim. Thus, claims 69 and 70, which depend upon independent claim 68, are also allowable.

10. Independent claim 72 has been amended to include the limitations of canceled claim 75, which was previously objected to for being dependent upon a rejected base claim. Thus, claims 73, 74, and 76, which depend upon independent claim 72, are also allowable.

11. Claim 77 has been rewritten in independent form including the limitations of independent claim 72, in addition to other limitations.

12. The subject cathode structure is provided for suppressing deterioration of the cathode due to self-heating by reducing the generation of Joule heat caused by intrinsic resistance of the oxide cathode. The design is new and unique to the art.

13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Quarterman whose telephone number is (571) 272-2461. The examiner can normally be reached on M-TH (7-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin Quarterman  
Examiner  
Art Unit 2879

kq   
12 May 2005

  
Joseph Williams  
Primary Examiner  
Art Unit 2879